

## **CLASS 278, LAND VEHICLES: ANIMAL DRAFT APPLIANCES**

### **SECTION I - CLASS DEFINITION**

This class includes that portion of land vehicles by means of which the pull of draft animals is utilized to move the vehicle over the ground.

### **SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS**

This class is subordinate to Class 280, Land Vehicles, and is distinguished therefrom, as indicated in the class definition above.

#### **SUBCLASSES**

#### **1 MISCELLANEOUS:**

This subclass is indented under the class definition. Devices and not classified in any of the other subclasses of this class.

#### **2 LOAD STARTERS:**

This subclass is indented under the class definition. Subject matter including devices auxiliary to the conventional means for drawing a vehicle which can be used to start a load by giving increased mechanical advantage to the draft animals.

#### **SEE OR SEARCH CLASS:**

280, Land Vehicles, subclass 151 for load starters operated by an auxiliary force

#### **2.1 STREETCAR:**

This subclass is indented under the class definition. Subject matter including means for attaching draft animals to streetcars.

#### **DRAFT EQUALIZERS:**

This subclass is indented under the class definition. Subject matter wherein the group of subclasses indented hereunder comprise means for effecting and utilizing the pull of two or more draft animals, so that the load will be proportioned to each animal in accordance with unit strength or varying conditions of pull; also means, where the line of draft relative to the load is offset, to overcome and prevent so-called "side draft".

- (1) Note. Conventional doubletrees involving only structural features and attaching means in the line of draft will be found in this class, subclasses 90+.

**3**

#### **Horse longitudinally aligned:**

Subject matter under "Draft Equalizers" wherein the draft animals are arranged in a longitudinal aligned relation, there being any number of animals abreast.

**4**

#### **Two abreast:**

This subclass is indented under subclass 3. Subject matter wherein the draft animals are arranged in files of two abreast.

**5**

#### **Horse abreast:**

Subject matter under "Draft Equalizers" wherein all the draft animals are arranged in abreast relation.

**6**

#### **Five-horse type:**

This subclass is indented under subclass 5. Subject matter wherein the number of animals is limited to five.

**7**

#### **With pole or poles:**

This subclass is indented under subclass 6. Subject matter wherein, in the type indicated, a pole or poles is employed.

**8**

#### **Four-horse type:**

This subclass is indented under subclass 5. Subject matter wherein the number of animals is limited to four.

**9**

#### **With pole or poles:**

This subclass is indented under subclass 8. Subject matter wherein, in the type indicated, a pole or poles is employed.

**10**

#### **Offset pole:**

This subclass is indented under subclass 9. Subject matter wherein the pole is offset relative to the team, i.e., three on one side and one on the other side of the pole.

**11**

#### **Three-against-one pull:**

This subclass is indented under subclass 10. Subject matter wherein three of the draft animals are arranged to pull against one.

- |  |  |
|--|--|
| <p><b>12 Two-against-two pull:</b><br/>This subclass is indented under subclass 10. Subject matter wherein the draft animals are arranged in pairs, each pair to pull against the other.</p> <p><b>13 Lateral evener connection:</b><br/>This subclass is indented under subclass 12. Subject matter wherein the draft connection between the draft equalizer and load is lateral of the pole.</p> <p><b>14 Three-horse type:</b><br/>This subclass is indented under subclass 5. Subject matter wherein the number of draft animals is limited to three.</p> <p><b>15 With pole or poles:</b><br/>This subclass is indented under subclass 14. Subject matter wherein, in the type indicated, a pole or poles is employed.</p> <p><b>16 With intermediate evener:</b><br/>This subclass is indented under subclass 15. Subject matter wherein an intermediate evener is used to connect at least two of the draft animals to a main evener or its equivalent.</p> <p><b>17 Offset:</b><br/>This subclass is indented under subclass 16. Subject matter wherein the intermediate evener has an offset position relative to the pole.</p> <p><b>18 Two-horse type:</b><br/>Subject matter under "Draft Equalizers" wherein the number of draft animals is limited to two.</p> <p><b>19 Leverage adjustment:</b><br/>This subclass is indented under subclass 18. Subject matter wherein there is a possible adjustment of position of the singletrees relative to the evener or of the evener relative to the load to proportion the load according to the strength or position of each of the draft animals.</p> <p><b>20 Automatic:</b><br/>This subclass is indented under subclass 19. Subject matter wherein the adjustment of position is effected automatically.</p> | <p><b>21 HORSE DETACHERS:</b><br/>This subclass is indented under the class definition. Subject matter comprising devices involving no special harness modification for quickly detaching draft animals from the vehicle; usually the driver can operate this disconnection from a position on the vehicle, as in case of the animal or animals running away.</p> <p><b>SEE OR SEARCH CLASS:</b><br/>54, Harness, subclass 69, for devices of like purpose involving harness modification or special arrangement of harness, with special vehicle attachments to cooperate therewith.</p> <p><b>22 Automatic:</b><br/>This subclass is indented under subclass 21. Subject matter wherein the detachment is effected automatically.</p> <p><b>23 Combined brake:</b><br/>This subclass is indented under subclass 21. Subject matter wherein upon operation of the detaching device, brakes are operated to stop the movement of the vehicle.</p> <p><b>24 Traces from singletree:</b><br/>This subclass is indented under subclass 21. Subject matter including means for simultaneously detaching the traces from the singletree.</p> <p>(1) Note. The singletree may be an element of a doubletree.</p> <p><b>25 Traces positively moved:</b><br/>This subclass is indented under subclass 24. Subject matter wherein the trace is positively moved out of its engaging position with the singletree.</p> <p><b>26 Movable trace-eye-engaging element:</b><br/>This subclass is indented under subclass 24. Subject matter wherein a trace-eye-engaging element is moved to a position to release the trace.</p> <p><b>27 Pivoted:</b><br/>This subclass is indented under subclass 26. Subject matter wherein the trace-eye-engaging element is pivoted.</p> |
|--|--|

- 28 Sliding pin or rod:**  
This subclass is indented under subclass 26. Subject matter wherein the trace-eye-engaging element is a sliding pin or rod.
- 29 Thills or pole from vehicle:**  
This subclass is indented under subclass 21. Subject matter wherein the thills or pole are released from their attached relation to the vehicle.
- 30 Retracting axle-clip bolt:**  
This subclass is indented under subclass 29. Subject matter wherein the usual axle-clip bolt is retracted to release the thills or pole.
- 31 Doubletree from pole:**  
This subclass is indented under subclass 21. Subject matter wherein the doubletree is released from the pole.
- 32 Singletree from thill or evener:**  
This subclass is indented under subclass 21. Subject matter wherein the singletree is released from the thills or evener.
- 33 POLE AND THILLS:**  
This subclass is indented under the class definition. Subject matter including patents for improvements relating to the pole or thills of a vehicle.
- 34 Plural:**  
This subclass is indented under subclass 33. Subject matter wherein the poles or thills are duplicated in the same vehicle.
- 35 Special purpose attachment:**  
This subclass is indented under subclass 33. Subject matter including devices adapted for attachment to poles or thills for various special purposes.
- 36 Poles:**  
This subclass is indented under subclass 33. Subject matter relating to poles only.
- 37 Agricultural implement type:**  
This subclass is indented under subclass 36. Subject matter including the type used with agricultural implements.
- (1) Note. Where the function of the devices is to equalize draft, they will be found in appropriate subclasses under "Draft Equalizers" in this class.
- 38 The pole body:**  
This subclass is indented under subclass 36. Subject matter including patents relating to the body or pole proper.
- 39 Selective positioned:**  
This subclass is indented under subclass 36. Subject matter wherein the pole body is capable of attachment to the rest of the pole in a plurality of positions.
- 40 Slip tongue:**  
This subclass is indented under subclass 36. Subject matter wherein the pole is socketed to a part of the vehicle and can be slipped into or out of such position.
- 41 Axle attached:**  
This subclass is indented under subclass 36. Subject matter wherein the pole is attached to the axle of the vehicle.
- 42 Width adjustment:**  
This subclass is indented under subclass 41. Subject matter wherein the pole has an adjustable rear-end portion to vary its width to accommodate it to varyingly spaced axle clips or equivalent axle fastenings.
- 43 Axle hounds attached:**  
This subclass is indented under subclass 36. Subject matter wherein the pole is attached to the vehicle through axle hounds.
- 44 Thills:**  
This subclass is indented under subclass 33. Subject matter relating to thills only.
- 45 Two-wheeled vehicles:**  
This subclass is indented under subclass 44. Subject matter adapted for use with two-wheeled vehicles.
- 46 Offset draft:**  
This subclass is indented under subclass 44. Subject matter wherein thills are so constructed or positioned relative to a vehicle that the draft

- animal travels to one side of the center line of draft.
- 47 Selective direct:**  
This subclass is indented under subclass 46. Subject matter wherein the thills may be selectively positioned to the vehicle, so that the draft animal travels either in the line of draft or to one side thereof.
- 48 Sectional:**  
This subclass is indented under subclass 44. Subject matter wherein the thills are composed of easily disconnected sections.
- 49 Joints and braces:**  
This subclass is indented under subclass 44. Subject matter relating to the joints or braces of thills.
- 50 Tips:**  
This subclass is indented under subclass 33. Subject matter including devices for tipping the ends of poles or thills.
- 51 Safety neck-yoke retainers:**  
This subclass is indented under subclass 50. Subject matter wherein pole tips are provided with means for preventing accidental removal of conventional neck-yoke centers from the ends of poles.
- (1) Note. Devices for a similar purpose where the neck-yoke center is modified will be found in this class, subclasses 51 and 53.
- 52 THILL COUPLINGS:**  
This subclass is indented under the class definition. Subject matter including devices for attaching thills to a vehicle; usually such connection is made to the axle; one of the elements of the coupling is formed on the thills.
- 53 Resilient:**  
This subclass is indented under subclass 52. Subject matter wherein the coupling resiliently connects the thills to the vehicle.
- 54 Safety attachment:**  
This subclass is indented under subclass 52. Subject matter including devices adapted to prevent separation of the thills and vehicle in case of disconnection of the coupling.
- 55 Plural:**  
This subclass is indented under subclass 52. Subject matter wherein the thills as a whole can be disconnected from the vehicle by any one of two or more couplings.
- 56 Special position release:**  
This subclass is indented under subclass 52. Subject matter wherein the coupling can be disconnected by movement of the thills to a special position other than the one in which the thills are normally placed.
- 57 L-head type:**  
This subclass is indented under subclass 56. Subject matter wherein one of the elements of the coupling is L-shaped.
- 58 T-head type:**  
This subclass is indented under subclass 56. Subject matter wherein one of the elements of the coupling is T-shaped.
- 59 D-head type:**  
This subclass is indented under subclass 56. Subject matter wherein one of the elements of the coupling is D-shaped.
- 60 Removable transverse pin or bolt:**  
This subclass is indented under subclass 52. Subject matter wherein a transverse pin or bolt passes through eye elements on the thills and vehicle.
- 61 Antirattling:**  
This subclass is indented under subclass 60. Subject matter including devices for attachment to conventional couplings of the type indicated to prevent rattling of the couplings.
- 62 With special pin retainers:**  
This subclass is indented under subclass 61. Subject matter wherein the antirattling device is formed as a part of means for securing the pin or bolt in place.
- 63 Resilient:**  
This subclass is indented under subclass 61. Subject matter wherein the antirattling device is resilient.

- |  |   |
|--|---|
| <p><b>64 Adjustable:</b><br/>This subclass is indented under subclass 63. Subject matter wherein the antirattling device is provided with means to adjust the resilient element.</p> <p><b>65 Special pin retainers:</b><br/>This subclass is indented under subclass 60. Subject matter including special means for holding the pin or bolt in place other than by conventional nuts, cotter pins, etc.</p> <p><b>66 Opposed lug engaging or carrying jaws:</b><br/>This subclass is indented under subclass 52. Subject matter wherein one of the elements of the coupling is a member having opposed lug-engaging or -carrying jaws.</p> <p><b>67 L-head type:</b><br/>This subclass is indented under subclass 52. Subject matter wherein one of the elements of the coupling is L-shaped.</p> <p><b>68 T-head type:</b><br/>This subclass is indented under subclass 52. Subject matter wherein one of the elements of the coupling is T-shaped.</p> <p><b>69 Cooperating hooks:</b><br/>This subclass is indented under subclass 68. Subject matter wherein the branches of the "T" are engaged by hooks.</p> <p><b>70 Retainers:</b><br/>This subclass is indented under subclass 69. Subject matter wherein retaining means is provided to maintain the "T" element in the hooks.</p> <p><b>71 Spring:</b><br/>This subclass is indented under subclass 70. Subject matter wherein such retaining means is in the form of a spring.</p> <p><b>72 D-head type:</b><br/>This subclass is indented under subclass 52. Subject matter wherein one of the elements of the coupling is D-shaped.</p> <p><b>73 Cooperating hook:</b><br/>This subclass is indented under subclass 72. Subject matter wherein the transverse member of the "D" is engaged by a hook.</p> | <p><b>74 Retainers:</b><br/>This subclass is indented under subclass 73. Subject matter wherein retaining means is provided to maintain the "D" element in the hook.</p> <p><b>75 Pivoted:</b><br/>This subclass is indented under subclass 74. Subject matter wherein the retaining means is a pivoted element.</p> <p><b>76 Spring:</b><br/>This subclass is indented under subclass 74. Subject matter wherein the retaining member is a spring.</p> <p><b>77 Plural part eye:</b><br/>This subclass is indented under subclass 72. Subject matter wherein one of the elements of the coupling is a separable eye adapted to clamp the transverse member of the "D".</p> <p><b>78 Pivoted jaws:</b><br/>This subclass is indented under subclass 77. Subject matter wherein the eye is formed by jaws pivoted together.</p> <p><b>79 Grapple type:</b><br/>This subclass is indented under subclass 78. Subject matter wherein the pivoted jaws resemble a grapple.</p> <p><b>80 Ball and socket:</b><br/>This subclass is indented under subclass 52. Subject matter wherein one of the coupling elements is a ball and the other is a socket to receive the ball.</p> <p><b>81 THILL SUPPORTS:</b><br/>This subclass is indented under the class definition. Subject matter including devices for supporting the thills of the vehicle in any position so that the ends are held above the ground.</p> <p><b>82 Plural position:</b><br/>This subclass is indented under subclass 81. Subject matter including means capable of supporting the thills in a plurality of positions.</p> <p><b>83 Spring latches:</b><br/>This subclass is indented under subclass 81. Subject matter wherein the support is a latch moved to engaging position by a spring.</p> |
|--|---|

- |   |  |
|---|--|
| <p><b>84 Spring:</b><br/>This subclass is indented under subclass 81. Subject matter wherein the support is a spring which resiliently supports the thills.</p> <p><b>85 Separate props:</b><br/>This subclass is indented under subclass 81. Subject matter including devices separate from the vehicle or thills adapted to engage the thills and some other part of the vehicle to prop the thills in raised position.</p> <p><b>86 POLE SUPPORTS:</b><br/>This subclass is indented under the class definition. Subject matter including devices for supporting the pole of the vehicle in any position so that the end of the pole does not contact with the ground or the animals are relieved of its weight.</p> <p><b>87 Ground-engaging props:</b><br/>This subclass is indented under subclass 86. Subject matter including means for engaging the pole and the ground to prop the pole.</p> <p><b>88 Spring:</b><br/>This subclass is indented under subclass 86. Subject matter wherein the support is a spring which resiliently supports the pole.</p> <p><b>89 Coil:</b><br/>This subclass is indented under subclass 88. Subject matter wherein the support is a coil spring.</p> <p><b>90 WHIFFLETREES:</b><br/>This subclass is indented under the class definition. Subject matter including patents relating to whiffletrees and to their connections to the pole, thills, or forward part of a vehicle, unless the invention is such as falls under the definition of draft equalizers.</p> <p><b>91 Resilient:</b><br/>This subclass is indented under subclass 90. Subject matter wherein the whiffletree is resilient.</p> <p><b>92 Metallic:</b><br/>This subclass is indented under subclass 90. Subject matter wherein the whiffletree is made of metal.</p> | <p><b>93 Trussed:</b><br/>This subclass is indented under subclass 92. Subject matter wherein the whiffletree is of metal and is provided with a truss brace.</p> <p><b>94 Trussed:</b><br/>This subclass is indented under subclass 90. Subject matter wherein the whiffle tree is provided with a truss brace.</p> <p><b>95 Connections:</b><br/>This subclass is indented under subclass 90. Subject matter including the connecting means between the elements of a whiffletree or between the whiffletree and pole, thill, or forward part of a vehicle.</p> <p><b>96 Link or clevis:</b><br/>This subclass is indented under subclass 95. Subject matter wherein the connecting means is in the form of a link or clevis.</p> <p><b>96.1 Resilient:</b><br/>This subclass is indented under subclass 96. Subject matter wherein the link or clevis is supported resiliently or consists of resiliently connected parts.</p> <p><b>96.2 Adjustable draft line:</b><br/>This subclass is indented under subclass 96. Subject matter wherein the link or clevis is so mounted or constructed as to permit change in the line of draft relative to the drawn vehicle.</p> <p><b>96.3 Horizontally:</b><br/>This subclass is indented under subclass 96.2. Subject matter wherein the adjustment is permitted in a horizontal plane.</p> <p><b>97 Resilient:</b><br/>This subclass is indented under subclass 95. Subject matter wherein the connecting means is resilient.</p> <p><b>98 To pole or thills:</b><br/>This subclass is indented under subclass 97. Subject matter wherein the connection of the whiffletree to the pole or thills is resilient.</p> <p><b>99 To pole or thills:</b><br/>This subclass is indented under subclass 95. Subject matter including connections of the whiffletree to the pole or thills.</p> |
|---|--|

- |   |   |
|---|---|
| <p><b>100 Pivot bolt:</b><br/>This subclass is indented under subclass 99. Subject matter wherein the connection is a pivot bolt.</p> <p><b>101 Offset pivot:</b><br/>This subclass is indented under subclass 100. Subject matter wherein the pivot-bolt is offset relative to an element of the whiffletree.</p> <p><b>102 Trace and whiffletree connections:</b><br/>This subclass is indented under subclass 90. Subject matter including devices for connecting whiffletrees to harness traces.</p> <p>SEE OR SEARCH THIS CLASS, SUB-CLASS:<br/>24+, for trace detachers.</p> <p><b>103 Resilient:</b><br/>This subclass is indented under subclass 102. Subject matter wherein the connection is resilient.</p> <p><b>104 Clamp:</b><br/>This subclass is indented under subclass 102. Subject matter including means provided to clamp the end of the trace.</p> <p><b>105 Trace-eye-engaging head or end:</b><br/>This subclass is indented under subclass 102. Subject matter wherein the whiffletree is provided with a head or end engaging in an eye formed at the end of the trace.</p> <p><b>106 Loop retainers:</b><br/>This subclass is indented under subclass 105. Subject matter wherein the whiffletree is also provided with retaining means in the form of a loop.</p> <p><b>107 Hook retainers:</b><br/>This subclass is indented under subclass 105. Subject matter wherein the whiffletree is provided with retaining means in the form of a hook.</p> <p><b>108 Spring detent retainers:</b><br/>This subclass is indented under subclass 105. Subject matter wherein the whiffletree is provided with a spring-detent retaining means.</p> | <p><b>109 Pivoted button or lug retainers:</b><br/>This subclass is indented under subclass 105. Subject matter wherein the whiffletree is provided with a pivoted button or lug as retaining means.</p> <p><b>110 Rotatable button retainers:</b><br/>This subclass is indented under subclass 105. Subject matter wherein the whiffle tree is provided with a rotatable button as retaining means.</p> <p><b>111 Hooks:</b><br/>This subclass is indented under subclass 102. Subject matter wherein the connecting means is in the form of a hook.</p> <p><b>112 Trace retaining:</b><br/>This subclass is indented under subclass 111. Subject matter wherein the hook is provided with trace-retaining means.</p> <p><b>113 Movable keeper:</b><br/>This subclass is indented under subclass 112. Subject matter wherein the retaining means is a movable keeper.</p> <p><b>114 Snap hook type:</b><br/>This subclass is indented under subclass 113. Subject matter wherein the hook is of the snap hook type.</p> <p><b>115 Special position release:</b><br/>This subclass is indented under subclass 112. Subject matter wherein the hook is movable to a special position to permit release of the trace.</p> <p><b>116 Opposed lapping hooks:</b><br/>This subclass is indented under subclass 115. Subject matter consisting of two overlapping opposed hooks.</p> <p><b>117 Whiffletree fastenings:</b><br/>This subclass is indented under subclass 111. Subject matter means for fastening the trace-connecting means to the whiffletrees.</p> <p><b>118 TRACE AND THILL OR POLE CONNECTION:</b><br/>This subclass is indented under the class definition. Subject matter including means for connecting the trace directly to the pole or thills.</p> |
|---|---|

- |  |  |
|--|--|
| <p><b>119 NECK POLES:</b><br/>This subclass is indented under the class definition. Subject matter including patents relating to neck yokes.</p> <p><b>120 End construction:</b><br/>This subclass is indented under subclass 119. Subject matter including patents relating to the end construction of neck yokes.</p> <p><b>121 Pole couplings:</b><br/>This subclass is indented under subclass 119. Subject matter including that part of the neck yoke which is connected to the pole.</p> <p><b>122 Modified pole and yoke (center):</b><br/>This subclass is indented under subclass 121. Subject matter including patents showing cooperative modification of both the pole and neck yoke.</p> <p><b>123 Permanently attached:</b><br/>This subclass is indented under subclass 122. Subject matter wherein the neck yoke is permanently attached to the pole.</p> <p><b>124 With safety devices:</b><br/>This subclass is indented under subclass 121. Subject matter wherein the neck yoke is provided with means to prevent accidental detachment of the neck yoke from the pole.</p> <p>SEE OR SEARCH THIS CLASS, SUBCLASS:<br/>51, for patents for a similar purpose where the neck yoke is conventional and the structure is a part of the pole.</p> <p><b>125 Leather eye or ring:</b><br/>This subclass is indented under subclass 121. Subject matter wherein the pole coupling is leather eye or ring secured to the neck yoke.</p> <p><b>126 HOLDBACKS:</b><br/>This subclass is indented under the class definition. Subject matter including means formed as a part of the thills or as an attachment to thills for harness connections to prevent the vehicle overrunning the draft animal.</p> <p>(1) Note. Neck yokes are equivalent in function where poles are used.</p> | <p><b>127 Harness attached:</b><br/>This subclass is indented under subclass 126. Subject matter wherein a part of the harness is secured to the attachment.</p> <p><b>128 Breech strap:</b><br/>This subclass is indented under subclass 127. Subject matter wherein the breech strap is the part of the harness.</p> <p><b>129 Adjustable:</b><br/>This subclass is indented under subclass 128. Subject matter wherein the position of the attachment is adjustable on the thills.</p> <p><b>130 Automatic release:</b><br/>This subclass is indented under subclass 128. Subject matter including devices permitting, under proper conditions, an automatic release of the harness from the attachment.</p> <p>END</p> |
|--|--|